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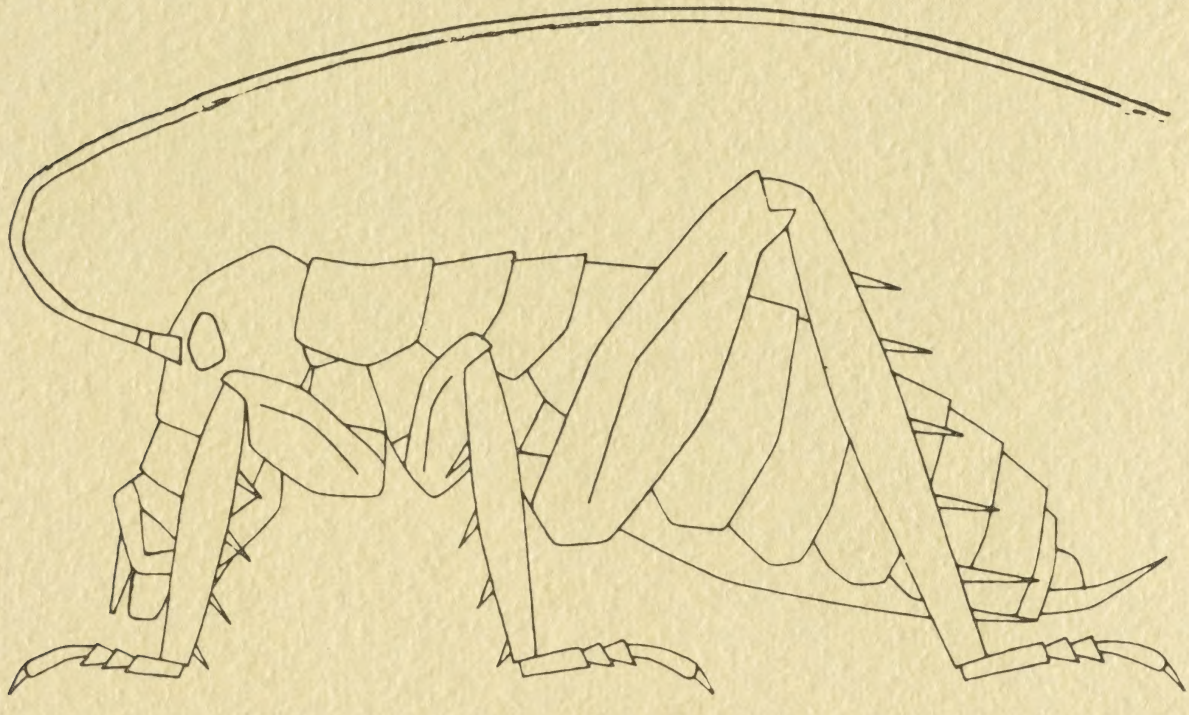

Newsbulletin of The Entomological Society of New Zealand Inc.

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J.D. Tenquist,
Editor, The 'Weta',
Wallaceville Animal Research Centre,
Private Bag,
Upper Hutt.

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CLOSING DATE FOR COPY FOR NEXT ISSUE OF THE WETA.
30 OCTOBER 1989

THE MATUKU RESERVE TREE PLATFORM

Garth D Allen
19 Robley Crescent, Glendowie, Auckland

We have no doubt all seen the David Attenborough film, presented on Our World and showing non-toxic gas-gunning of the upper canopy in the jungles of the Wallace divide on Sulawesi. The project was a combined British Museum and Indonesian project.

How spectacular, all that equipment! How could poor New Zealand scientists, hit by user pays and heavens knows what next, ever aspire to collecting in the canopy of their own native bush.

But wait; there is the good old Kiwi philosophy of get in behind there and do-it-yourself. So, that is what Auckland Branch has done, and everyone else is welcome to come and use the facility.[1]

The idea for an arboreal platform came from Past President, Peter Maddison and was adopted with enthusiasm by the committee. Before long, we had sufficient money granted to enable us to select a suitable tree and measure it for the first stage - the erection of a ladder.

The ladder was designed in bronze anodized aluminium, with flat stepladder type treads and tubular handrails to allow even the elderly, confidence of access. The eight-metre ladder follows the slope of the main trunk of the tree, a magnificent puriri, which leans outward across the gully at about 70 degrees from the horizontal. Ladder length was a calculated guess, as we could not get up the tree until we had a ladder! and even when we did, it is jolly difficult to measure up materials when suspended 14 metres above the creek bed below.

Ordered they were, and pre-cut and numbered. Fortunately I still had my Heavy Traffic licence, a relic of my student days. We hired a truck, loaded everything on board and proceeded to Matuku, an 80 ha reserve owned by the Royal Forest & Bird Protection Society near Te Henga, West Auckland. We managed to negotiate the lightly metalled private road and then the grass track and finally backed as far

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[1] If you are visiting Auckland and would like to see the tree platform at Matuku Reserve, contact our Secretary, Olwyn ([09] 836-5888) who will be happy to arrange for a branch member to take you there.

as we dare, down into the bush. Thirteen fellow members made light work of manhandling the ground retention timber about one and a half kilometres downhill through some pretty tough going, and stacked it on the track close to the tree.

With the ladder bolted firmly into position the construction crew, Chris Green, Peter Sheppard, my son Andrew and myself, proceeded to erect the main beams, joists and decking and finally the vision rails which were purposely kept low to give a sense of safety without conflicting with or spoiling the view.

The completed platform is approximately 5 x 3 metres and offers unique opportunity for the intimate study of the epiphytes and their attendant populations of insects and of course the bird and insect population of the upper canopy.

It is very early days yet as the platform has only been open since March 1988, but already it is yielding some very interesting specimens, especially from the malaise trap and from light trapping using a portable generator at night.

We are all very grateful for the enthusiastic support we received from our hosts the West Auckland Branch of the Royal Forest & Bird Protection Society, and we hope that this mutually beneficial relationship continues for the benefit of all who use and enjoy that remarkable reserve we know as Matuku.

For those who do not know Matuku, the reserve encompasses a wide range of habitat from swamp on the north side of the Waitakere River where it flows out into the Tasman through broadleaf and into podocarp.

In conclusion, I would like to note that the Auckland Branch may contemplate another suggestion from Peter Maddison that the extensive wetlands at Matuku should be more accessible for the serious water scientist, perhaps by means of a pontoon jetty extending out into the reeds for a 100 metres. Only time can tell what partnership may result in the building of such an ambitious project, but I would like to remind you all that the tree platform itself, only three years ago was considered by many to be only an ambitious dream.

*

NEWS FROM AUSTRALIA

My apologies to Geoff Monteith: Geoff sent me some copy for this issue and I cannot tell a lie - I lost it. If he is still speaking to me next issue, I will try and get a copy.

DOME VALLEY

Wendy Pond
22 School Road
Morningside, Auckland 3

An expedition by four members of the Auckland Branch on 26th March, 1988. Leader: Chris Green. Members: Olwyn Green, Wendy Pond, Ron Fitzwilliam.

Dome Valley, seven kilometres north of Warkworth is a National Reserve administered by the Department of Conservation. It was chosen for a field trip simply because we had never been there before. We were encouraged by the clear air and hot sun to assail the countryside.

From the Information Centre, we followed a track to the trig, 336 metres ASL. On the way, several native Thysanura (silverfish) were found on rotten wood and it was noted how well these primitive native insects blend in with the pale speckled brown bark. One posed for a photograph taken by Ron, unlike the silvery coloured cosmopolitan species, usually associated with paper products indoors and which scuttle off when disturbed.

Also observed was a green cicada, *Kikihia ichrina* singing in flax at the summit. As we returned, the continuous "zizza-zizza" call was heard by the party in several locations on the windward side of the track.

Chris noted that there were very few moths on the wing which may have been due to Cyclone Bola earlier in the month. Considerable quantities of freshly fallen foliage were observed resulting in a thin, more open forest canopy. The trees above the ridge line track had borne the brunt of the cyclone although fortunately, only a few trees had been totally destroyed.

Ron returned with some excellent slides of various fresh fungi found associated with rotten wood or growing through the litter. We spent several minutes trying to capture on film a large velvety mite we found under a log. It was anxiously seeking refuge from the sunlight. An abandoned mason wasp nest on a rock face had various dead mason wasps and other insect debris on the rocks underneath.

*

Miomantis caffra
A note

As the species becomes more common and therefore "visible", Auckland Branch members observe that *Miomantis caffra*, the "new" mantid from South Africa, is not very particular where she deposits her oothecae. They have been noticed on curtains and other household furnishings and inside cars where they hatch quite happily. One has been spotted on the corner of a fence right next to an ootheca of *Orthodera ministralis*!

Olwyn Green

*

THE STORY OF THE CAT AND SUPERHUHU

R.L. Palma
National Museum
Wellington

"There was an old woman who swallowed a fly,
I don't know why she swallowed a fly.
Perhaps she'll die....
To catch the fly she swallowed a spider
that wriggled and jiggled and tickled inside her.
Perhaps she'll die..."

This story needs a change to the characters of the preceding children's song: instead of a woman there was a healthy three year old male cat and instead of a fly and a spider, there was a very, very large huhu beetle (*Prionoplus reticularis* White). The stage was the house of Mr Alan Cowie in Ihaka Hakuene Street, Manakau, New Zealand on the evening of November 29th in the year 1988 AD. Four large and timid Saluki dogs served as supporting cast.

It happened when our entomological hero, superhuhu suddenly and noisily entered Mr Cowie's lounge where the dogs and the cat were enjoying their time of relaxation after what may have been a busy day of eating and sleeping. Superhuhu chose to land on one of the Salukis who, terrorized by such an alien form of life, quickly retreated in dismay. By now the cat, well known for his dominant

personality, noticing the flying intruder who dared invade his territory, swiftly jumped on superhuhu, caught it between his powerful jaws and swallowed it before our hero could even emit a squeak.

Peace and quiet were restored to Mr Cowie's lounge, at least for the night. However, that is not the end of this story.... On the following morning something was wrong with the cat; he did not eat, he did not move around, he was sick... and by 3 o'clock that afternoon, he was DEAD! As an autopsy was not performed, it can only be inferred that the cat died because of an intestinal obstruction or from internal injuries caused by the badly chewed hard parts of superhuhu. Whatever the cause, its lethal action was extremely fast.

Several morals can be drawn from this story, but surely it is more interesting to speculate on the possible motivations behind the actions of the cat, the huhu and the dogs: or, having relished succulent huhu grubs before, wanted to try the imago as well? or perhaps superhuhu had been contracted out by the dogs who, tired of being endlessly bullied, decided to do something about it... we will never know!

Acknowledgements

I am indebted to Mrs Jane Coard for providing the basic data for this story, and to Ron Ordish for the unfinished children's song.

*

RED ADMIRALS ON *Urtica aspera*

B H Patrick
Department of Conservation
PO Box 5244, Dunedin

Gibbs (1980) noted that *Urtica aspera*, a native nettle of the central South Island was a likely host of the red admiral butterfly *Bassaris gonerilla*, but that no larvae had ever been recorded from it. I can now record that the species does, as he suspected, feed on this rather uncommon nettle species.

On 18 January whilst traversing the ridge north of the west branch of the Waikaia River on the eastern flanks of the Garvie Mountains in northern Southland at 1100 metres altitude, I came across a substantial rock shelter (see photograph). I

sampled the plant for lepidoptera larvae and adults, as the plant genus had seven monophages in the lepidoptera known to me plus several other species that feed on it from time to time. The plant colony was found to contain many larvae of various sizes of the endemic red admiral butterfly in their characteristic leaf shelters. No larvae of others species were detected.

Acknowledgments

Thanks to Dr Peter Johnson of DSIR Botany for confirming the identity of the nettle species and my companion Alan Petire for photography.

Reference

Gibbs, G.W. 1980: New Zealand Butterflies.

*

SOME ENTOMOLOGICAL ACTIVITIES IN VERMONT, USA

John Grehan

Entomology Research Laboratory
655B Spear Street, South Burlington
VERMONT 05403 USA

During September 1988, I moved to Burlington, Vermont to begin working on the conifer swift moth (*Korscheltellus gracilis,* Hepiliadae), a forest insect that may have a significant ecological and economic impact on the growth and dynamics of New England forests. The Hepialidae are generally not well known in the northern hemisphere, and the group is not very diverse or abundant in Europe and North America. Recently however, researchers at the Entomology Laboratory of the University of Vermont found that the conifer swift moth occurs in high numbers and the larvae feed on major forest trees such as balsam fir and red spruce. This discovery led to further investigations at the Entomology Laboratory through a Masters thesis by Don Tobi on the insect's altitudinal distribution and a Ph.D study by Jonathan Leonard on the life table and spatial distribution of a mountain population.

An extended research programme on the ecological impact of conifer swift moth damage to forest growth was initiated by the head of the Entomology Laboratory, Bruce Parker, in cooperation with Bill Wallner of the US Forest Service. Bruce Parker is a Professor of Entomology with a broad research background in economic entomology including integrated pest management, pesticides, post-harvest technology, biological control measures and economics of forest pests. Recent international research by Bruce contributed to the integrated management of potatoes in Ethiopia and Kenya.

Research into swift moth feeding damage brought in the services of David Wagner who worked on hepialid biosystematics for his Ph.D at the University of California, Berkeley. David recently gained a faculty position at the University of Connecticut and I took his place to continue the impact research which is currently being financed by the Empire State Electric Energy Corporation based in New York. This organisation is interested in the role of biological factors such as insects and pathogens in the decline of New Enlgand spruce-fir forests.

Dieback of forests is widely attributed to acid deposition and ozone. Research into chemical factors is given high priority for financial support but these investigations do not directly consider the action of biological agents that could occur regardless of pollution or have a combined effect. Either way, it is necessary to find out what

insects and disease contribute to forest ecosystems in order to set realistic standards for pollution control measures. Work by the Entomology Laboratory indicates that the conifer swift moth is present in high numbers at the mid to high altitudes where forest decline is taking place. The larvae feed on mosses, fern roots and the roots of a variety of angiosperm and gymnosperm trees. Larval feeding has been shown to reduce the growth of spruce seedlings under controlled conditions. It is predicted that the larval root feeding damage will facilitiate the entry of fungal pathogens or wood rots in mature trees.

The current major insect problem in Vermont has been the outbreak of pear thrips *Taeniothrips inconsequens* on sugar maple. The insect is a European immigrant and recognised pest of fruit trees. The overwintering adult thrips emerge from the soil in the spring and fly up to the leaf buds where they feed and lay eggs. Adult feeding on buds results in reduced leaf growth or destruction of the entire leaf before budbreak. Large numbers of thrips on maple were first noted in 1985 and the population has now increased to the point that about 500,000 acres of Vermont sugar maple forest were defoliated in 1988. Sugar maple is of major economic importance through production of maple syrup and the contribution of maples to New England's autumn leaf colour which is a major tourist attraction. In February 1989 the Entomology Laboratory, in collaboration with the Vermont Department of Forests, Parks and Recreation, hosted an International Thrip Conference which attracted over 150 scientists and foresters from Canada, Great Britain and the United States. The biology and ecology of the pear thrips on sugar maple is the focus of a Ph.D project by Margaret Skinner who is working in association with Bruce Parker on survey techniques for analysing the insect's life history and distribution. Part of this programme involves a state wide sampling of the overwintering thrips population and the development of efficient soil extraction procedures. I contributed to the design of a heptane flotation method that is being used to separate thrips from soil in samples collected throughout Vermont. The development of biological control methods is the topic of a Masters thesis by Jeannie Yuill who is in Europe for six months to investigate potential biological control agents.

Jennifer Grant has just completed a Masters thesis on the use and effectiveness of controlled release insecticides against stored grain pests in Indonesia. Laboratory and warehouse trials of insecticide release were carried out during 1985-86 in West Java. Indonesia is now self sufficient in rice production, but storage of this crop from one to two years increases the risk of economic loss through stored grain insect pests. The country has placed a strong emphasis on insecticide use and efficient methods of application has become an important issue.

Jennifer also surveyed the insect pests of dried cassava products in Java and tested insect monitoring devices in warehouses for stored grain.

The gypsy moth *Lymantria dispar* is an important defoliator of New England forests and is subject to periodic outbreaks. The insect overwinters as eggs laid in masses on tree trunks and various other sites. The female is flightless. Two Masters thesis studies are currently looking at aspects of the insect's population ecology and biology. Eva Doane is working on the impact of insect predators, particularly the role of ant predation on eggs and pupae. This work includes a general survey of the ant fauna. Judy Rosovsky is beginning a study of "focal areas" which are localities that may be the centres of future outbreaks. It is significant that this important work, in anticipation of potential long term benefits for forest management can be financed at a time when the insect is not actually causing major economic damage.

Bruce Parker has encouraged and developed an extensive level of cooperation with State, Federal and private organisations in relation to insect problems. Through these activities the Entomology Laboratory is able to support a range of research interests that benefit the state as well as helping to finance student research. My perception of the financial infrastructure here is that the opportunities for attracting finance, while competitive and limited, are better than in New Zealand. Rather than trying to choke off research support, there appears to be a greater government (State and Federal) commitment to supporting research that is in contrast to the present New Zealand government. Direct economic benefits have a high priority, but there is also considerable scope for financing long term research that goes beyond immediate financial gain.

The Entomology Research Laboratory is located at the periphery of Burlington and about a mile from the University Campus. It occupies a small single story building with a glass house and workshop. There are about 14 people working here, including Luke Curtis who looks after the technical support for research. Burlington is a middle sized (my New Zealand standard) city of about 40,000 people. Vermont has a relatively low population and low unemployment. Recently there was concern expressed about the unemployment rate climbing from 3.4 to 3.5%. Much of the land is covered by forests that have grown over the last 100 years with the decline in farming. If you have to live outside New Zealand, Vermont is not a bad place to be. [I concur -Ed]

*

"INSECTS LIVE!", A SHORT-TERM EXHIBITION OF LIVING INSECTS

R.G. Ordish
National Museum of New Zealand
Private Bag, Wellington

Living specimens are the province of Zoological gardens and as a rule should remain that way because they are appropriately equipped and staffed, and are usually quarantine areas with imported stock.

Notwithstanding, the National Museum has from time to time kept live insects and spiders for teaching purposes and at the instigation of the Education Officer a display of ten species was planned for the special exhibitions gallery for February and March 1989. It was entitled "Insects Live!". The time was chosen to accommodate the school term and more importantly, to coincide with the availability of suitable insects. We needed durable, easily maintained species which were available locally and amenable to display. In larval form these were the Monarch butterfly *Danaus plexippus*, the Magpie moth *Nyctemera annulata* and the Australian Gum emperor moth, *Antheraea eucalypti*. Also on display were the American cockroach *Periplaneta americana* per courtesy of the Department of Biological Sciences, Victoria University of Wellington, The Wellington tree weta *Hemideina crassidens* per courtesy of the Wellington Zoological Gardens, the praying mantis *Orthodera ministralis*, the Katydid *Caedicia simplex*, the green vegetable bug *Nezara viridula*, assorted phasmids (stick insects) and a tank of pond insects, predominantly dytiscid beetles and the common back swimmer *Anisops assimilis*.

Most of the display containers were persplex boxes 450x450x600 or 900 mm mounted on a wooden plinth with one removable, gauze covered side or top. The biggest environmental problem was that of dryness, and access for spraying was essential.

The three lepidopterous larvae all required vast amounts of food and where feasible, substitutes were displayed such as *Araujia* with *Asclepias* for the monarch, and *Galinsoga parviflora* and *Senecio* with *Cineraria* for *Nyctemera*.

Silver birch was not used as a substitute for eucalypts because not all trees sold as silver birch are *Betula pendula*. In the third week a viral infection killed some of the Gum emperor caterpillars and the cage had to be cleaned out and restocked with both plants and larvae. Stick insects and katydids fed readily on raspberry bushes and pohutukawa. They were the easiest to keep, followed closely by the mantids which were fed daily from the contents of a commercial fly trap -

notwithstanding, a group of nine was reduced to five mature females by the end of the fourth week - and the pond insects which were fed regularly with mosquito larvae. One month before opening day, three runner bean seeds were planted and trained up three 1m garden stakes that met at the top. These beans provided good durable food for *Nezara* but the bugs had to be plentiful in order to be seen because they are well camouflaged on this plant. With the benefit of hind-sight, a single bean would have been better planted a fortnight later with a replacement plant a month after that. The cockroaches needed only water because all other food was installed in advance.

The only real challenge came from the wetas. A metre length of a mahoe log *Melicyctus ramiflorus* was cut and one side was removed with a circular saw to reveal an almost continuous disused tunnel with an entrance top and bottom. It had not been used for some time and was cleaned with a wire brush and the cut surface was covered with a strip or persplex cut to the same outline as the log. The log was sloping backward at about a 20 degree angle, giving the wetas ready access to ngaio and coprosma plants from the top exit. The six wetas were found together in another log and their compatibility checked by letting them settle in a suitable box inside an empty aquarium which was covered with Italian cloth. Under such circumstances an incompatible specimen is quickly evicted from the box and the ensuing sound is readily identifiable.

The next step was to allow the specimens to explore the territory available to them. This was done by covering the entire cage with Italian cloth for 24 hours. There was a mild tendency for the specimens to accumulate at the top of the log on the outside but within a week they were consistently in the log during the day and damage to plants indicated they were ranging over much of the cage at night when the gallery was exceptionally dark. During the day the gallery was lit by two rows of 60 watt crown-silvered adjustable spot lamps with a reflector shade. Normally each exhibit was lit from both sides but as a concession to the wetas the inner one was extinguished. They grouped in various parts of the log when the lights were out but tended to move to the top where they assembled as a clearly visible natural group.

Throughout, a balance had to be struck between the minimum number of specimens required to ensure that visitors saw at least some of the specimens, and the maximum sustainable food source.

*

Selenopalpus COMES WITHIN RANGE

George Gibbs
Victoria University
P O Box 600 Wellington

Captain Cook's *Endeavour* voyage collected a specimen of the metallic blue oedemerid beetle *Selenopalpus cyaneus* (Fabricius, 1775) whilst circumnavigating New Zealand in the summer of 1769-70. When Dr J.R.H. Andrews and I carried out a survey of the *Endeavour* insects (Andrews and Gibbs, 1989), we were surprised that the naturalists on the voyage had taken an insect which is normally regarded as subalpine. Our surprise was based on Hudson's (1975) revision of New Zealand Oedemeridae in which no recent records of *S. cyaneus* are given below 700 m and the genus is said to be "confined solely to inland areas" (p.229).

So far as we can judge, Banks, Solander, Parkinson, and any other aspiring naturalists on the voyage, did not venture far from the safety of their ship and certainly did not penetrate inland to climb any real mountains. So, where did they find *S. cyaneus*? Has it retreated to the mountains during the last 200 years?

The answer lies on the scrub-covered East Harbour hills of Wellington where *S. cyaneus* was found this summer feeding in the blossoms of kanuka, *Kunzea ericoides* at an elevation of 210 m in full view of the sea. This site and season (30 December) suggest that the insect is most likely to have been collected when *Endeavour* made its base at Ship Cove, Marlborough Sounds for an extended stay of 21 days in January 1770. We know that Cook climbed at least three hills in the vicinity, ranging between 220 and 380 m in order to get a view between the North and South Islands and confirm the existence of the Strait that bears his name. Flowering manuka or kanuka collected from these hillsides (both common there today) could easily have yielded the specimen of *S. cyaneus*.

References

Andrews, J.R.H.; Gibbs, G.W. 1989: The first New Zealand insects collected on Cook's *Endeavour* voyage. *Pacific Science* 43 (1):102-114.

Hudson, L. 1975: A systematic revision of the New Zealand Oedemeridae (Coleoptera: Insecta). *J. Royal Soc. N.Z.* 5 (3): 227-274.

*

OTAGO BRANCH TRIP TO THE ST MARY'S RANGE
Otago Section contribution

On the south-western side of Kurow, 10 km from the main street, is the St Mary's Range. It is very steep and surprisingly high with peaks over 2000 metres. A road winds up through golden tussock to the ski field. The last hundred metres resemble a roadside pile of gravel on an enormous scale - there seems to be nothing but loose sliding rocks and stones, even on the summit. Nevertheless, in a few places there is cushion vegetation and other plants characteristic of alpine meadows.

Despite the very severe erosion, the area is notable for a large number of large, spectacular and showy insects present in a relatively small area.

The range has been neglected by entomologists. The recent expedition (comprising Brian and Holly Patrick, Elma Cook, George, Charlotte and Gordon Morris, John Steel, Kees Green, Barbara Barrett, John and Geraldine Ward, Brian Rance and Antony Harris) was one of the first to make a thorough search. As we started to climb, Mountain giant dragonflies *Uropetala chiltoni* darted across the road. From the first gate, (from as low as 800 m) *Lyperobius* weevils were abundant on *Aciphylla*. These weevils were surprisingly common, coming out to feed at night, or when the humidity was high.

Beneath stones, at 1500 m, giant byrrid beetles, very convex and irridescent green (*Pedilophorus* sp) were found under stones near springs.

Alpine grasshoppers were present in a wide range of colours - all shades of green, chocolate, light brown, and yellow. On screes an impressive, massively built species, *Brachapsis robustus* was coloured like greywacke shingle.

Under stones near cushion plants occurred the large and very handsome alpine weta *Diancrida connectans*. Also present were giant *Hemideina maori* wetas - similar to those on top of the Rock and Pillar Range.

Two species of black alpine butterfly soared and glided over the screes and black alpine cicadas took short flights. Brian Patrick found 54 species of alpine moth, some undescribed. John Ward set up a portable light trap by an alpine stream and was rewarded with a wide range of species. Giant ghost moths with variegated chocolate, brown buff and cream coloured wings (*Airia* sp) came to his light at dusk.

It is surprising that such a rich and spectacular insect fauna should occur in an area that is so badly eroded.

*

EDITOR'S REPORT 1989

Volume 11 of the *N.Z. Entomologist* appeared in June 1988, well presented and prepared as usual by our publishers, Wright and Carman and with an interesting mix of papers.

Volume 12 is with the printers. It comprises 25 papers, an obituary and two book reviews. Publication date is expected to be mid-June. It should run to about 96 printed pages.

Status of papers for volume 13

With member of Editorial Board	1
Returned to author(s)	3
Returned and amended	0
In preparation (book reviews)	2

There is still plenty of room in this volume.

A plea

Prospective authors are asked to take particular care to follow the journal's format as many MSS still require considerable amendments.

Current contents

The *N.Z. Entomologist* appears to be about the only NZ biological journal not cited by *Current Contents*, although we were in their lists between 1981 and 1986. I wrote to the editor asking for us to be reinstated on their list but was rebuffed. Apparently they have a constant need to keep up with new and wide-ranging journals and this, together with other considerations such as content, timely publication, geographic origin and format, appears to exclude us from their orbit.

Acknowledgement

I wish to tender my grateful thanks to members of the Editorial Board who, by their careful reviewing of MSS, have made my task immeasurably easier that it

could be if I were operating alone. Authors have also been, for the most part, very prompt with the return of amendments and galleys etc. and this has made the task relatively trouble free.

Allen Heath
Editor.

*

OTAGO SECTION
Report to the Executive, 1989

During the year, the section has become affiliated to the Royal Society. Our agenda has been printed in the Royal Society's list distributed to member bodies.

In February, submissions were presented to the Cromwell Borough Council objecting to their proposed re-siting of the Council rubbish dump closer to the Chafer Beetle Reserve. The Section will be monitoring any changes in this area.

There have been a variety of speakers at the monthly meetings. The topics have ranged over a variety of entomological subjects relating to natural history, conservation and control of insect pests.

The Section has had a major field trip to the St Mary's Range near Kurow. Members from as far afield as Invercargill and Christchurch combined to make this a successful trip to an area of high country that has not been surveyed before.

Membership is steady at 45 and attendance at meetings has been good.

Charlotte Morris
President, Otago Section.

NOTICES

11th International Congress for the study of Social Insects.

This conference will be held in India between August 5 - 11th 1990 at the Department of Entomology, University of Agricultural Science, Bangalore 560 065. A first circular will be sent out in the near future.

The contact is G.K. Veeresh at the above address.

*

The Sixth International Symposium on pollination and management of wild bees will be held in the Netherlands in late August 1990. The contact is Dr C van Heermert, Director of the Research Centre for insect pollination and beekeeping; Ambrosiusweg 1, 508 NG Hilvaren beek; Netherlands.

*

In conjunction with Auckland University, the Society is part owner of a *Esterline 9-channel recorder*. The University of Auckland want to sell us their share of it and this will be brought up at the next Executive meeting. However, the instrument is available to members for use and Susan Millar holds the instruction manual. Anyone wanting to borrow this instrument should get in touch with Susan.

*

The Education Sub-committee urge members to
ADVERTISE OUR SOCIETY

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*

Bernard Courtin of -
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is interested in collecting the following on an exchange basis -

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*

SATURNIDAE Togo (West Africa)

COLEOPTERA Togo (Cetoniidae, cerambycidae, lucanidae)

*

Alessandro Copelli of Via Pozzo,21 - 29100 Piacenza, Italy. Is interested in contacting an entomologist in New Zealand with a view to exchanging or buying insects.

*

AUCKLAND BRANCH
Annual report, 1989

This has been another successful year for the Auckland Branch. Membership stands at 99 and 10 monthly meetings were held. Topics and speakers included:

Diseases of the honey bee in New Zealand	Denis Anderson
The nastier side of insects	Beverley Holloway (blister beetle)
	Ruud Kleinpaste (bites and phobias)

Bioluminescence	Brenda May & Nicholas Martin
Insectivorous birds	Brian Gill & Dick Sibson
Aldamba and the Seychelles scale	Garry Hill

A Video evening with tapes from "Our World" and other nature programmes featuring insects or spiders were shown. A large collection of colour transparancies on various insect and spider themes was donated by Ruth Cooper for slide evenings.

The Forensic Society invited the branch to a presentation of awards including one to Trevor Crosby and Charles Watt for their work on insects found in the $8.8 million cannabis haul.

Our Annual Dinner featured Willie Kuschel speaking on the 25th anniversary of the Systematics Section of Entomology Division, DSIR.

An entertaining evening of debate was organised on the topic "That biological control should not be allowed".

Several field trips were made to the Matuku Reserve - the official opening of the newly acquired block of land and the opening of the tree platform built by the branch. Light trapping was also carried out on the platform and the Branch had a day trip to Dome Valley.
The Branch continued to advertise its activities in local papers, libraries and on radio stations, resulting in several enquiries and new members. A display was set up at the Waitemata Stadium for a festival theme of "Keep New Zealand Green" which also brought interest and new members into the branch.

1989 Officers:	Chairman:	Garth Allen
	Secretary:	Olwyn Green
	Treasurer:	Chris Green
	Committee:	Peter Maddision
		Pat Dale
		Grace Hall
		Pam Dale
		Wayne Eivers
		Paul Scotti
		Rudy Sunde
		Polly McColl

ROYAL SOCIETY MEMBER BODIES' COMMITTEE
REPRESENTATIVE'S REPORT 1989

Election of Officers

Member Bodies' Management Committee 1989-90

Dr Robert Lee (Soil Sciences Soc.)
Dr Peter Roberts (Onchology Soc.)
The Vice Chairman, Dr Bruce Miller was re-elected.

Affiliation fee

A 30% reduction in government funding of Royal Society and the effects of GST have combined to oblige Council to reconsider this fee. The committee can only make a recommendation to Council but the new fees are expected to be $5.00 per capita for the period March 1989-90. i.e. $2.00 per member payable by 30th June and $3.00 for the 15 month period ending in June 1990. Thereafter $3.00 per annum per member should suffice.

Biennial Conferences

In response to a request from our President, I asked that this be put on the agenda to find out if any Member Bodies had adopted this as a cost cutting measure. Several already hold biennial conferences but cost reduction is not the main reason, and one representative pointed out that 1988 was not a good year in which to measure support for conferences because government reorganising of research departments mean that people who might normally attend conferences had other things on their mind.

Scientific publication

Dr R.K. Dell, a member of the Society's publications committee led a discussion on scientific publishing in New Zealand. The main thrust of his argument was that costs have risen steeply without significant improvement in quality or speed of production. It will become increasingly difficult to get work published specially in biosystematics and we should be planning for the amalgamation of journals rather

than proliferation. While there was not total agreement with this last point, it would clearly cut costs.

R. G. Ordish

INSECT ZOO

The attempts to establish an insect zoo in Lower Hutt have led to some rather amusing press. The following pages contain some of the more interesting and need no further comment from me!

Councillor's comments rile

The following letter, from the DSIR, was submitted by deputy director Dr Mike Rudge and entomologist Mike Meads.

We in DSIR have read with great interest the press release from Cr Baird which you published recently about the insect zoo proposals. We regret two things about it. One is that the councillor has chosen to tell the citizens some untruths, and secondly that his negative pronouncements continue to be all that the public is getting on the subject.

Cr Baird claimed that it is a project "to suit a few at the DSIR at the City's expense... the DSIR has to get more money to fund its activites and to contract out its people. What better way than to talk Lower Hutt into paying some staff to run an insect zoo." Cr Baird would have the citizenry believe that he alone is protecting the rights and pockets of citizens against repacious DSIR scientists who are hoodwinking innocent councillors and council officers.

Stirring stuff, but quite untrue, as the councillor knows because he has had it explained to him in public committee.

In fact the project was initiated within the council's walls and we were asked to oblige. Because there was a lot of uncertainty about what the concept meant we compiled a comprehensive document for the council about overseas establishments and what could be done as a public attraction in New Zealand. We did it at no charge.

We were then invited to join the council's task force to produce the feasibility study which the council has just voted on. For the time we devoted to that we had to charge - as does any other professional or technical consultant the council retains from time to time.

As an extra help we even diverted one of our staff who was overseas, to examine some exisiting public exhibits in the US and give an illustrated report to the council. That was done at a fraction of the cost of a specific fact-finding visit.

I said we had two regrets. The second is that the Hutt News has not yet given the readers anything to judge the issue by. The various reports are public documents, I understand, and the task force convener, Vernon Napier, is very accessible, as we are. If all that your readers get is the bad news, then that is a pity.

An insect zoo is a novel and innovative civic concept. We in DSIR are not lobbying for it, but we are prepared to provide our expertise if called upon. We realise that there is a fine line between "advice" and "persuasion" and we've tried to observe that.

But, even dry, objective scientists aren't above a bit of enthusiasm for giving our city something that doesn't exist anywhere else in New Zealand. The idea and its implementation is not above criticism of course but, as citizens ourselves, we'd like to see it based on the truth.

Ecologist says:

Right atmosphere key to successful insect displays

Visiting an insect zoo would be like entering the insect world rather than bringing the creatures to the human environment.

That's the vision of ecologist Dr Mike Rudge, who is part of the task force looking into the insect zoo proposed for Lower Hutt.

Lobbying

He is enthusiastic about the project but is quick to emphasize he is not lobbying for it. But he does think it is an exciting, viable proposition for the city.

Creating atmospheres appropriate to the insects being displayed is a priority in the kind of zoo Dr Rudge envisages. "With care one can create, within the confines of the building, a different world - subdued lighting, different sounds."

He hopes to see replication of different insect habitats as well as facilities for visitors to view the animals in their different stages of metamorphosis.

Graphics also play an important role in Dr Rudge's ideas. He says the whole point of the zoo is for people to gain an understanding of what the animals are, what they do, and how they live.

The task force prepared a list of dozens of kinds of insects that could be included in a zoo. Most of them are native but there are various non-native creatures which are common in New Zealand, for example the monarch butterfly, which could also find a place in the zoo.

Dr Rudge is keen to see educationalists involved in planning for the proposed zoo because of the application the facility could have to primary and secondary school biology syllabuses.

Escaping

One city councillor had expressed fears about the possibility of the insects escaping from the zoo and damaging the artworks stored at the neighbouring Dowse Art Museum. Dr Rudge says: "there is about as much chance, or even more chance, of things flying in through the doors and windows of the Dowse on an average summer's day and damaging the exhibits than there is of insects getting out of an insect zoo".

Warning: Make no mistakes on staff demand

The insect zoo task force is underestimating the staff that would be required by such a facility, believes one of the key people involved in an insect exhibition at the National Museum earlier this year.

Entomologist Pamela Lovis says the suggestion the zoo could be adequately run by a scientifically qualified curator and a technical assistant is impractical. She also believes a great deal of planning needs to go into the project because of the back-up services and facilities, such as breeding programmes and plant supplies, that would be needed.

The National Museum ran a live insect exhibition from February 10 to April 2 this year. It featured 10 common species of insects and was aimed specifically at children. Class tours were booked out, with several teachers' requests for tours having to be turned down. About 3000 school children saw the exhibition on organised tours. The number of people who visited it on a private basis is unknown.

Ms Lovis says the response was "excellent". She thinks the insect zoo proposal for Lower Hutt is viable, but careful planning is neccessary.

Idea supported

The insect zoo proposal has the support of the Lower Hutt branch of the Royal Forest and Bird Society.

Chairperson Maureen Burgess says the group supports the concept in principal and she expects it will be more vocal about that in the future.

She says if the proposal does not get more support quickly she thinks other cities will take up the idea.

Mrs Burgess believes changing lifestyles has increased the need for such things as insect zoos. Fewer people have vegetable gardens and children do not see the common garden insects they used to.

Insects are studied by all primary school children in the Wellington region she says, and "books aren't half as good as going to see something."

Hutt News 18/4/89

Temporary show could test enthusiasm

A possible temporary exhibition is to be considered to test the feasibility of a permanent insect zoo in Lower Hutt.

Convenor of the insect zoo task force Vernon Napier says it will meet within the next couple of weeks to look into a suggestion to set up a temporary exhibit. It will also work on gaining sponsorship for the project.

Mr Napier says the council and task force want the zoo to go ahead only if it can be built and run without cost to ratepayers.

He is conscious the approach to potential sponsors must be done in a professional manner. "I think the idea is so novel that it would carry better in a visual rather than verbal presentation. I don't think the phrase, insect zoo, conjures up anything in anybody's mind."

People should know it is not dead insects that are involved, but is for exhibits of living creatures, he says. Also only native species are, at this stage, planned for inclusion in the zoo.

Using resources from similar zoos already established overseas, Mr Napier hopes to put together a video on the type of facility that is envisaged.

His personal vision involves "a rather large room with display cases, sounds, lighting effects, huge graphic displays, an unending video, perhaps a replica of a cave with glow-worms... where the experience is not strictly an intellectual one."

The insect zoo task force has already submitted one report to the city council. It concluded the preferred site for the zoo would be adjacent to the Dowse Art Museum because the land was owned by the council, the site met all scientific and entomological requirements, it was readily accessible by the public, and there could be a sharing of visitors and support services with the Dowse.

Based on that, the task force calculated the capital costs of constructing and furnishing an insect zoo would be about $900,000.

Almost half of that would need to be funded by sponsorship or a grant, with the remainder of the money coming from a loan to be serviced by profit from the zoo, the report said.

The task force estimated the number of visitors per year would be about 50,000. This was half the number of visitors to the Dowse and included 10,000 visits from school children or tertiary students.

It's been called novel, a tourism-booster and a chance for humans to learn more about the insect world. Others have labelled it silly, wasteful and totally out of place. Should Lower Hutt pursue the idea of an insect zoo? Bindy Aarons looks at the issues....

'Council has better things to debate'

Lower Hutt City councillor Errol Baird remains unimpressed with the insect zoo concept.

He says the evidence that such a venture would prosper here is flimsy at best. "All who I have asked have without exception rejected the insect zoo as a silly, wasteful notion and we as a council had better get on and run our city for our people, rather than waste time."

The latest report on the zoo is about seven pages - mostly listing insects and how to care for them - and a one page

Cr Errol Baird; "people are not going to flock to what will be a very small insect zoo".

Cr Baird said. There is some reproduced articles and letters from overseas insect museum's/displays, "embellished with handwritten notes.

"In no way is this a comprehensive document, study or reasonable justification for a capital expenditure of $1 million and an ongoing cost of $150,000 to $200,000 (Cr Baird's estimates)."

Cr Baird said justification for the insect zoo seems to boil down to three things:

- It seems to be a great idea so we should do it anyhow.
- It will be self-supporting - PROVIDED we can get at least 75,000 people a year to pay $3 or more a year to see it, and
- provided we can get half the capital cost - $500,000 - from city businesses.

Ratepayers will judge the practicality of it, he said. "I reject these suggestions based on nearly six years on council. People are not going to flock to what will be a very small insect zoo at $4 or $5 a head. We have not had success in trying to raise that kind of sponsorship - three years ago we tried to get $40,000 for a Lower Hutt video and achieved the princely sum of $1500.

"Further, the Dowse Art Museum is just that - an art museum with a nationally recognised collection of craft art that we can be proud of. It's not a natural history museum; an insect zoo is totally out of place," he said.

Insect zoo queried

A proposal to build an insect zoo in Lower Hutt has been slammed by Cr Errol Baird, despite receiving support from other councillors who discussed it last week.

The idea of the zoo was first raised over a year ago by then Dowse Art Museum director James Mack. It was referred to the city council promotions and external relations (PER) committee for further consideration. At the same time Mr Mack suggested the city adopt the giant weta as the city's symbol and also support a DSIR breeding programme for the insect.

While support for the weta symbol has waned, the insect zoo proposal has surfaced again following release of a report from the task force charged with investigating the proposal. The report was last week considered by the PER committee.

The task force said the zoo would benefit the city and could be set up and run at no cost to council, through sponosorship. It considered next to the Dowse Art Museum would be the best location though sites at Lower Hutt railway station and on the Petone Foreshore had also been considered. The estimated cost was $900,000.

Last week the PER commitee approved in principle the proposal to build the zoo and if that is ratified by the full council next week, the task force will investigate further.

The proposal has been called a "foolishness" by Cr Baird. In a press relase, Cr Baird said it was a "waste of council time, effort and money".

He said he did not believe the project would be self-funding or that sufficient sponsorship would be found.

"The insect zoo does not fit into the Dowse Art Museum in any way. It is more a project to suit a few at the DSIR at the city's expense... The DSIR has to get more money to fund its activites and to contract out its people. What better way than to talk Lower Hutt into paying some staff to run an insect zoo."

Cr Baird also attacked the task force report, saying it was too general for any real conclusion. "It is a shoddy piece of work."

Councilior Alison Lawson, also on the committee, said the idea had credibility and potential and should be further looked into. Not only was there potential in educational aspects, but it would be a drawcard to the city.

Puns and quips, but zoo to be pursued

An insect zoo for Lower Hutt is to be further investigated, despite some councillors viewing it as a "fly by night" idea.

The discussion, at last Wednesday's council meeting, on a recommendation to agree in principle with the establishment of the specialist zoo, took on a Monty Pythonesque air. Councillors indulged themselves, much to their entertainment, in puns and odd-ball comments fitting to the subject, and the once-serious discussion soon degenerated into great hilarity.

Cr Errol Baird, well known for his vehemently-expressed ant-i views on the subject was later tic -ed off for frequently comparing the city council with his workplace, IBM.

The consequences of an earthquake worried Cr Mary Bannerman. She wanted to know what would happen to all the "greeblies" if a disaster were to strike, though it was clearly not out of concern for the tiny creatures.

"The mind boggles when you think what might happen when all those things get out.

"On one hand we are trying to stop greeblies from damaging our works of art (the proposed site for the museum is next to the Dowse Art Museum), and here we are planning to install masses of insects next to them."

But city engineer Peter Leslie was quick to reassure her that nothing too terrible would happen. "Man-eating, or woman or person-eating insects are not proposed for the zoo." And he said the council would be more concerned for the safety of people in the event of a disaster, than for the zoo exhibits.

Cr John Terris showed rather more concern for the little mites, and wanted to know if the SPCA had been contacted and whether the insects were happy.

And as the insect zoo would fit the definition of natural history, it was appropriate that Cr Terry Puketapu comment on the oddities of human nature.

"Human beings are funny people. We'll probably all go home and get the spray bombs out and kill as many as we can, ruining the ozone layer and probably killing ourselves."

If that is so, perhaps the insects ought to build a human zoo?

Evening Post 29/3/89

No Jones cash for bug zoo

Wellington businessman Bob Jones will not be sponsoring an insect zoo for Lower Hutt but it has nothing to do with him being insulted by a councillor.

When the possibility of an insect zoo was discussed last year, one of the councillors suggested Mr Jones be approached for sponsorship.

Cr Errol Baird replied he did not think Mr Jones would be interested in sponsoring it and he "would not ask the bastard for it anyway." Cr Baird later resigned as chairman of the council's housing committee.

Mr Jones said yesterday his company would support something in Lower Hutt in future but it would not be an insect zoo.

He did not believe an insect zoo would have large public appeal and it was not a proper function of the council to become involved in such a project. The suggestion was novel but not the sort of project his company would become involved in.

To be democratic, ratepayers should be polled to see if they felt the council should be promoting the zoo, Mr Jones said.

LETTERS

Outburst 'strange'

Sir,

As the councillor who moved that the proposal to establish an insect zoo in Lower Hutt be approved in principle, I find it strange that Cr Baird finds it necessary to embark on a public fight to oppose it.

I, no more than other councillors who supported it, are yet to be fully convinced that the scheme can be carried off and there are certainly many questions still to be answered. But it is a project well worth investigating and if we succeed it will be a great asset to the city. The intention is that it should not be ratepayer financed, but we can hardly caste about for a sponsor until we have at least said we like the idea.

Anyone who has seen an insect zoo in overseas zoos will know their fascination and their value as an educational aid. New Zealand at present has none and if we can establish one it will be a great attraction to this city as well as a valuable community asset.

PETER BATES,
Councillor

Evening Post 31/3/89

Insect zoo breakout concerns

A new monster has reared its head in connection with Lower Hutt's insect zoo.

At last night's monthly city council meeting, Cr Mary Bannerman raised the spectre of a breakout by rampant insects in an earthquake.

Staff at the Dowse Art Musuem went to great lengths to ensure art works were protected from greebees and the council was now planning an adjacent insect zoo, she said.

Disaster recovery techniques should be looked at for insect breakouts and flamethrowers should perhaps be on hand.

The scenario could be called "the day of the insects," Cr Errol Baird said.

City engineer Peter Leslie said the zoo would not have man eating insects and he was more concerned whether it was safe for humans in an earthquake.

"What about red back spiders escaping?" one councillor interjected.

Cr John Terris said he hoped the SPCA had been asked and insects polled to ensure they were happy with the council's plans.

Cr Pat Brosnan said he had not heard one comment in favour of an insect zoo.

An insect zoo was one of the better ideas of the former director of the Dowse, James Mack, Cr Peter Bates said.

Cr Pat Hall said she had received favourable comment on the proposal.

There were pressing needs in the social lives of human beings to be dealt with before the social lives of insects were, Cr Teri Puketapu said.

A zoo could be considered in 10-20 years time when the insects were becoming extinct.

Mayor Glen Evans said overseas insect zoos showed they had great human interest value.

The council voted 11-5 to continue investigations into the zoo.

J.D. Tenquist, Editor
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NOTICE TO CONTRIBUTORS

The 'Weta' is a scientific supplement. Editing is kept to a minimum and authors are responsible for the accuracy of their statements. Manuscripts, where possible should be typed double-spaced, on Standard A4 paper, and on one side of the page only.

Authors with access to typing services are requested to supply manuscripts single spaced on A4 paper, using a typeface with ten characters to the inch.

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